

WHAT IS CLAIMED IS:

1. A vehicle child seat attachment structure comprising:
a vehicle body panel configured and arranged to conform to a contour of a portion of a vehicle cabin; and
5 a first sheet metal structural member fixedly coupled to the vehicle body panel to create a space between the vehicle body panel and a cabin facing portion of the first sheet metal structural member;
the cabin facing portion of the first sheet metal structural member being configured and arranged to form at least a first bar portion of an integrated child seat tether anchor
10 that is arranged and dimensioned to receive a child seat tether clip.
2. The vehicle child seat attachment structure according to claim 1, wherein the vehicle body panel is a floor panel, and
the first sheet metal structural member is a side structural member extending in a
15 front to aft vehicle direction of the floor panel.
3. The vehicle child seat attachment structure according to claim 2, wherein the first sheet metal structural member has a reinforcement plate located within the space and attached to the cabin facing portion, the reinforcement plate being configured
20 and arranged to form at least a second bar portion of the integrated child seat tether anchor that is arranged and dimensioned to overlies the first bar portion such that the child seat tether clip is fastened around the first and second bar portions.
4. The vehicle child seat attachment structure according to claim 2, wherein
25 the floor panel has a wheel well attached to a side portion of the floor panel, and the first sheet metal structural member is attached to the wheel well.
5. The vehicle child seat attachment structure according to claim 4, wherein
30 the floor panel, the wheel well and the first sheet metal structural member are configured and arranged to form the space between the vehicle body panel and the cabin facing portion of the first sheet metal structural member.

6. The vehicle child seat attachment structure according to claim 4, wherein
the first sheet metal structural member has a substantially L-shaped transverse
cross section with a first lateral edge fixed to the floor panel and a second lateral edge
5 fixed to the wheel well.

7. The vehicle child seat attachment structure according to claim 6, wherein
the first sheet metal structural member has a reinforcement plate located within the
space and attached to the cabin facing portion, the reinforcement plate being configured
10 and arranged to form at least a second bar portion of the integrated child seat tether anchor
that is arranged and dimensioned to overlie the first bar portion such that the child seat
tether clip is fastened around the first and second bar portions.

8. The vehicle child seat attachment structure according to claim 7, wherein
15 the reinforcement plate has a substantially L-shaped transverse cross section.

9. The vehicle child seat attachment structure according to claim 7, wherein
the first bar portion of the first sheet metal structural member is defined by front
and rear openings that are spaced in the front to aft vehicle direction, and
20 the second bar portion of the reinforcement plate is defined by front and rear
openings that are spaced in the front to aft vehicle direction.

10. The vehicle child seat attachment structure according to claim 9, wherein
the front openings are larger in the front to aft vehicle direction than the rear
25 openings.

11. The vehicle child seat attachment structure according to claim 2, wherein
the floor panel has a second additional sheet metal structural member that is a side
structural member extending in the front to aft vehicle direction of the floor panel, and
30 the second sheet metal structural member is fixedly coupled to the vehicle floor
panel to create a space between the vehicle body panel and a cabin facing portion of the
second sheet metal structural member,

the cabin facing portion of the second sheet metal structural member being configured and arranged to form at least a first bar portion of an additional integrated child seat tether anchor that is arranged and dimensioned to receive an additional child seat tether clip.

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12. The vehicle child seat attachment structure according to claim 1, wherein the vehicle body panel is a roof panel, and the first sheet metal structural member is a cross structural member extending in a side to side vehicle direction of the roof panel.

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13. The vehicle child seat attachment structure according to claim 12, wherein the integrated child seat tether anchor is located generally in an area of one side portion of the roof panel.

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14. The vehicle child seat attachment structure according to claim 12, wherein the first sheet metal structural member has a reinforcement plate located within the space and attached to the cabin facing portion, the reinforcement plate being configured and arranged to form at least a second bar portion of the integrated child seat tether anchor that is arranged and dimensioned to overlie the first bar portion such that the child seat tether clip is fastened around the first and second bar portions.

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15. The vehicle child seat attachment structure according to claim 14, wherein the first sheet metal structural member and the reinforcement plate include angled portions that are arranged in an overlapping relationship.

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16. The vehicle child seat attachment structure according to claim 14, wherein the first bar portion of the first sheet metal structural member is defined by front and rear openings that are spaced in a front to aft vehicle direction, and the second bar portion of the reinforcement plate is defined by front and rear openings that are spaced in the front to aft vehicle direction.

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17. The vehicle child seat attachment structure according to claim 16, wherein the front openings are larger in the front to aft vehicle direction than the rear openings.

5 18. A method of manufacturing a vehicle child seat attachment structure on a vehicle comprising:

forming a vehicle body panel that conforms to a contour of a portion of a vehicle cabin; and

10 forming a first sheet metal structural member that is fixedly coupled to the vehicle body panel to create a space between the vehicle body panel and a cabin facing portion of the first sheet metal structural member; and

15 forming an integrated child seat tether anchor in the cabin facing portion of the first sheet metal structural member such that the cabin facing portion of the first sheet metal structural member is configured and arranged to form at least a first bar portion of the integrated child seat tether anchor that is arranged and dimensioned to receive a child seat tether clip.

19. The method according to claim 18, wherein the integrated child seat tether anchor is formed in a side structural member
20 extending in a front to aft vehicle direction of a floor panel.

20. The method according to claim 19, further comprising attaching a reinforcement plate to the cabin facing portion of the first sheet metal structural member within the space, the reinforcement plate being configured and arranged
25 to form at least a second bar portion of the integrated child seat tether anchor that is arranged and dimensioned to overlies the first bar portion such that the child seat tether clip is fastened around the first and second bar portions.

21. The method according to claim 19, wherein
30 the floor panel has a wheel well attached to a side portion of the floor panel, and the first sheet metal structural member is attached to the wheel well.

22. The method according to claim 21, wherein
the floor panel, the wheel well and the first sheet metal structural member are
configured and arranged to form the space between the vehicle body panel and the cabin
facing portion of the first sheet metal structural member.

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23. The method according to claim 21, wherein
the first sheet metal structural member has a substantially L-shaped transverse
cross section with a first lateral edge fixed to the floor panel and a second lateral edge
fixed to the wheel well.

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24. The method according to claim 19, wherein
forming a second sheet metal structural member that is fixedly coupled to the
vehicle body panel to create a space between the vehicle body panel and a cabin facing
portion of the second sheet metal structural member; and

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forming an additional integrated child seat tether anchor in the cabin facing portion
of the second sheet metal structural member such that the cabin facing portion of the
second sheet metal structural member is configured and arranged to form at least a first bar
portion of the additional integrated child seat tether anchor that is arranged and
dimensioned to receive an additional child seat tether clip.

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25. The method according to claim 18, wherein
the integrated child seat tether anchor is formed in a cross structural member
extending in a side to side vehicle direction of a roof panel.

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26. The method according to claim 25, wherein
the integrated child seat tether anchor is located generally in an area of one side
portion of the roof panel.

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27. The method according to claim 25, wherein
attaching a reinforcement plate to the cabin facing portion of the first sheet metal
structural member within the space, the reinforcement plate being configured and arranged
to form at least a second bar portion of the integrated child seat tether anchor that is

arranged and dimensioned to overlies the first bar portion such that the child seat tether clip is fastened around the first and second bar portions.

28. The method according to claim 27, wherein
5 the first sheet metal structural member and the reinforcement plate include angled portions that are arranged in an overlapping relationship.

29. The method according to claim 28, wherein
the first bar portion of the first sheet metal structural member is defined by front
10 and rear openings that are spaced in the front to aft vehicle direction, and
the second bar portion of the reinforcement plate is defined by front and rear
openings that are spaced in a front to aft vehicle direction.